

## CLAIMS:

1. A method of modifying data in an encoded data signal comprising :
  - a) a decoding step for decoding said encoded data signal and providing a decoded data signal,
  - b) a re-encoding step performed on a modified data signal,
  - 5 c) a step for providing a pixel-based residual signal, which is added to said decoded data signal, and which results from the difference between a predicted signal of an additional data signal and said additional data signal,characterized in that it comprises :
  - d) a conversion step for providing a frequential residual signal resulting from the frequential  
10 conversion of said pixel-based residual signal, said frequential residual signal being added to said decoded data signal,
  - e) a sub-step for adding said frequential residual signal to said decoded data signal, so as to provide said modified data signal.
- 15 2. A method as claimed in claim 1, in which an intermediate step is inserted between said decoding and re-encoding steps, comprising at least means for providing a motion-compensated signal from a coding error generated by said re-encoding step, characterized in that said motion-compensated signal is subtracted from said modified data  
20 signal before said re-encoding step.
3. A method of modifying data in an encoded data signal comprising :
  - a) a decoding step for decoding said encoded data signal and providing a decoded data signal,
  - b) a re-encoding step performed on a modified data signal and generating a coding error,
  - 25 c) an intermediate step inserted between said decoding and re-encoding steps, comprising at least a subtracting operation between said decoded data signal and a motion-compensated signal obtained from said coding error, said subtracting operation defining said modified data signal,

characterized in that it comprises sub-steps for inserting an additional data signal into said intermediate step.

4. A method as claimed in claim 3 in which a definition step of a residual signal  
5 is carried out, said residual signal resulting from the difference between said additional data signal and its predicted version, characterized in that said residual signal is subtracted from said motion-compensated signal by means of a subtracting sub-step.

5. A method as claimed in claim 3, characterized in that :  
10 a) said additional data signal is added to said coding error by means of an adding sub-step,  
b) said additional data signal is added to said decoded data signal by means of an adding sub-step.

6. A method as claimed in claim 3, characterized in that :  
15 a) said additional data signal is added to said coding error by means of an adding sub-step,  
b) said additional data signal is subtracted from said motion-compensated signal by means of a subtracting sub-step.

7. A method of modifying data in an encoded data signal comprising :  
20 a) a decoding step for decoding said encoded data signal and providing a decoded data signal,  
b) a re-encoding step performed on a modified data signal and generating a coding error,  
c) an intermediate step for obtaining a motion-compensated signal from said coding error,  
and comprising at least a subtracting sub-step between said decoded data signal and said  
25 motion-compensated signal for providing said modified data signal,  
characterized in that it comprises a sub-step for adding an additional data signal to said modified data signal before said re-encoding step.

8. A transcoding device for adding data to an encoded data signal, comprising :  
30 a) decoding means for decoding said encoded data signal and providing a decoded data signal,  
b) re-encoding means acting on a modified data signal,

- c) means for providing a pixel-based residual signal, which is added to said decoded data signal and which results from the difference between a predicted signal of an additional data signal and said additional data signal,

characterized in that it comprises :

- 5 d) conversion means for providing a frequential residual signal resulting from the frequential conversion of said pixel-based residual signal, said frequential residual signal being added to said decoded data signal,
- e) means for adding said frequential residual signal to said decoded data signal, so as to provide said modified data signal.

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9. A transcoding device for adding data to an encoded data signal, comprising :

- a) decoding means step for decoding said encoded data signal and providing a decoded data signal,
- b) re-encoding means acting on a modified data signal and generating a coding error,
- 15 c) an intermediate branch inserted between said decoding and re-encoding steps, comprising at least a subtracting operation between said decoded data signal and a motion-compensated signal obtained from said coding error, said subtracting operation defining said modified data signal,

characterized in that it comprises data insertion means for inserting a modifying data signal

20 into said intermediate branch.

10. A transcoding device for adding data to an encoded data signal, comprising :

- a) decoding means for decoding said encoded data signal, and providing a decoded data signal,
- 25 b) re-encoding means acting on a modified data signal and generating a coding error,
- c) an intermediate branch for providing a motion-compensated signal from said coding error, and comprising at least a subtracting sub-step between said decoded data signal and said motion-compensated signal for generating said modified data signal,

characterized in that it comprises means for adding an additional data signal to said modified

30 data signal before re-encoding.

11. A computer program product for a transcoding device for adding data to an encoded data signal, which product comprises a set of instructions which, when loaded into said device, causes said device to carry out any method as claimed in claim 1 or 7.